JUNIPER NETWORKS | Engineering Simplicity

Quick Start

Cloud-Ready SSR1500

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Step 1: Begin

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In this guide, we provide a simple, three-step path, to quickly get the Juniper Networks® SSR1500 appliance up and running on Juniper Mist™ cloud. You can on-board a single device using your mobile phone, or one or more devices using your computer. Once on-board, we'll walk you through the steps to create a basic configuration. You'll need your Juniper Mist WAN Assurance subscription and your login credentials for the Juniper Mist portal.

NOTE: Before you begin, you must set up your organization and sites, and activate your subscriptions. For more information, see Quick Start: Mist.

Meet the Cloud-Ready SSR1500

The SSR1500 is a 1 U fixed configuration appliance that's ideal for for extra large data center or campus deployments. Powered by the Juniper® Session Smart Router (SSR) software, the SSR1500 provides secure and resilient WAN connectivity.

The SSR1500 has four 1 GbE ports, twelve 1/10/25 GbE SFP28 ports, a management port (for Mist operations), 512 GB of memory, and a 1 TB enterprise-grade solid-state drive (SSD) for storage.



Claim Your Appliance

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The SSR1500 comes ready to manage using the Juniper Mist™ Cloud portal.

To add the SSR1500 to your organization's WAN Edge inventory, you must enter the SSR1500 claim information into Mist. The claim code label (QR code sticker) on the front panel has the claim information.

To enter the claim information, do one of the following:

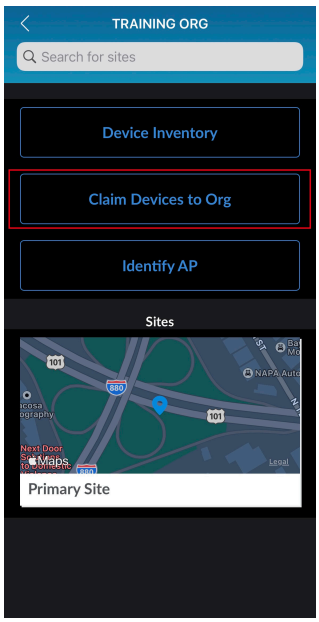
- Scan the QR code with the Mist AI mobile application. See "Mist AI App QR Scan" on page 3.
- Manually enter the claim code in Mist. The claim code is the number above the QR code. For example: In this picture, the claim code is FVDHMB5NGFEVY40. See "Enter the Mist Claim Code" on page 3.



Mist AI App QR Scan

You can download the Mist AI App from the Mac App Store or from Google Play Store.

1. Open the Mist AI app and log in using your account credentials. If you do not have an account, see Create a Mist Account and Organization.
2. Select your organization.
3. Tap **Claim Devices to Org**.



4. Scan the QR code. The app automatically claims the device and adds it into your organization's inventory.
5. On the Organization screen, tap **Device Inventory → Routers → Unassigned**.

   Review the MAC address.

Onboarding Complete!

Fantastic, the SSR1500 is in your inventory! To provision the SSR1500, see "Step 2: Up and Running" on page 5.

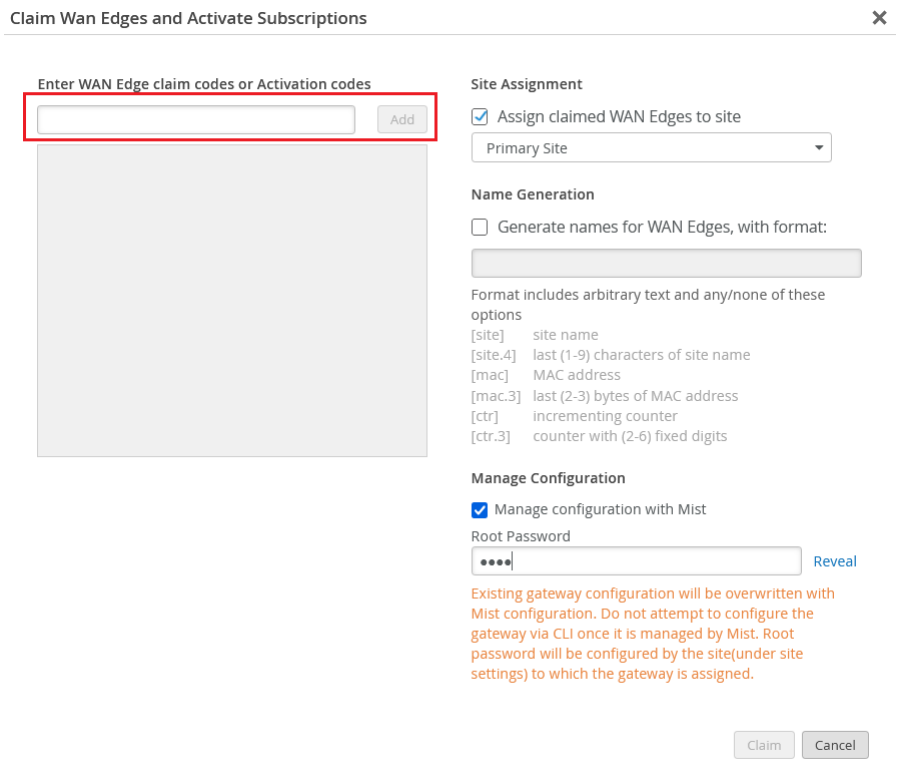
Enter the Mist Claim Code

Claiming multiple devices—When you purchase multiple devices, we provide you with an activation code along with your PO information. Make a note of this code.

Claiming a single device—Locate the QR code on your device and make a note of the alphanumeric claim code directly above it.

1. Open the Juniper Mist™ Cloud portal and log in to your account. If you do not have an account, see Create a Mist Account and Organization.

2. Select **Organization > Inventory** from the menu on the left, then select the **WAN Edges** tab at the top.
3. Click **Claim WAN Edges** in the upper right portion of the inventory screen.
4. Enter the SSR1500 Activation code or claim code and click **Add**.



5. Clear the **Assign claimed WAN Edges to site** check box to place the SSR1500 in the inventory. The SSR1500 is assigned to a site later, see "Assign the SSR1500 to a Site" on page 11.
6. Click the **Claim** button to claim the SSR1500 into your inventory.

Video: Add the Claim Information in Mist

Onboarding Complete!

Fantastic, the SSR1500 is in your inventory! To provision the SSR1500, see "Step 2: Up and Running" on page 5.

Step 2: Up and Running

SUMMARY

The SSR1500 is onboarded to the Juniper Mist™ Cloud. To provision the SSR1500 with ZTP, log in to your Mist portal and begin the WAN configuration.

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- Assign the SSR1500 to a Site | 11
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- Connect Your SSR1500 to the Mist Cloud | 12

Add the Network

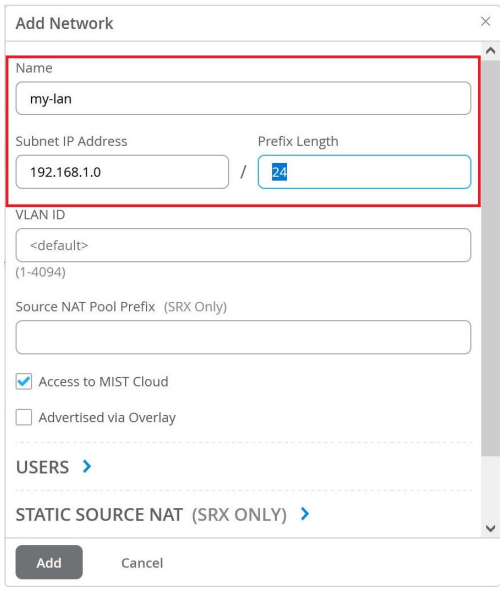
To begin your WAN design, identify the network to be used for accessing applications over a LAN network segment.

1. Select **Organization > Networks** from the menu on the left.
2. Click **Add Networks** in the upper-right corner of the Networks page.



Video: Access the Add Networks Page

3. Enter a name for the network.
4. Enter the network subnet. For example, **192.168.1.0/24**.



5. Click **Add**.

Excellent! This network is now defined for use across the entire organization, including the template that you will apply to your SSR1500.

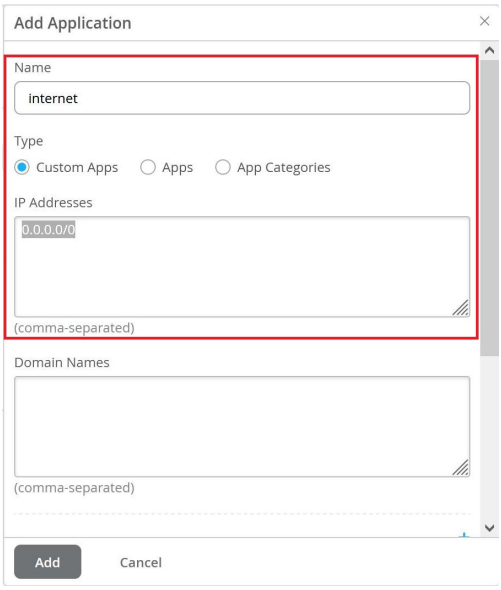
Add Applications

Define the applications for the WAN to deliver, starting with the Internet.

1. Select **Organization > Applications** from the menu on the left.
2. Click **Add Applications** in the upper-right corner of the Applications page.

Video: Access the Add Applications Page

3. Enter the name of the application. For example, **Internet**.
4. Enter **0.0.0.0/0**, or all IPv4 address space in the IP Addresses field.



5. Click **Add**.

Nice! Your organization is now set up to provide access to the Internet.

Create a WAN Edge Template

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- Create a Template | 7
- Configure the WAN Port | 8
- Configure the LAN Port | 8
- Configure Traffic Steering Policy | 10
- Configure the Application Policy | 11

Excellent! Now you have the SSR1500 waiting to be claimed, a network for your LAN, and an application. Next, you need to create a WAN Edge template that ties them all together! Templates are reusable and keep the configuration consistent for every SSR1500 you deploy.

Create a Template

To create a Template:

1. Select **Organization > WAN Edge Templates** from the menu on the left.

2. Click **Create Template** in the upper-right corner of the WAN Edge Templates page.
3. Enter a name for the template.
4. Click **Create**.
5. Enter the NTP and DNS information for the WAN edge device as per your network requirements.

Video: Create the Template

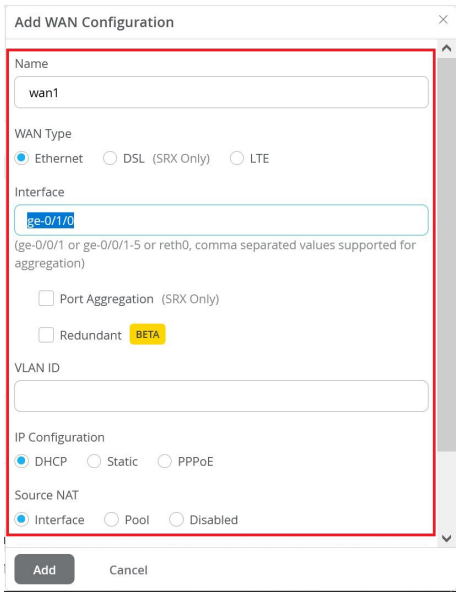
Configure the WAN Port

The first thing to do in your template is to specify which port to use for the WAN.

1. Scroll to the WAN section of the template, and click **Add WAN**.
2. Enter the name for the WAN port. For example, **wan1**.

Video: Add WAN Configuration

3. Enter the interface as **ge-0/1/0** to designate it as a WAN port.



4. Click **Add**.

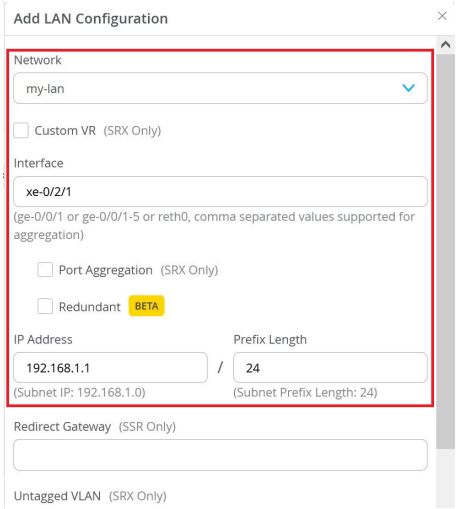
Configure the LAN Port

Next, associate your LAN network segment with the appropriate port on the SSR1500.

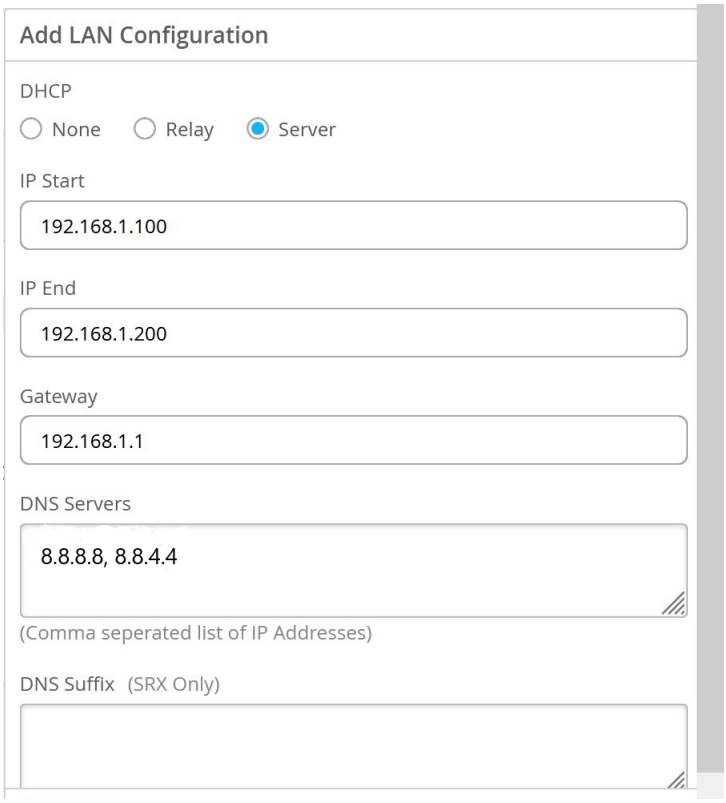
1. Scroll to the LAN section of the template, and click **Add LAN**.

Video: Add LAN Configuration

2. From the Network drop-down menu, select your network segment to associate it with the LAN port.
3. Enter the interface for the LAN port, for example, xe-0/2/1.
4. Enter **192.168.1.1** as the IP Address that needs to be assigned to the WAN edge device **.1** for use as the gateway in the network.
5. Enter **/24** as the Prefix Length.



6. Select **Server** under DHCP to provide DHCP services to endpoints on this network.
7. Give your DHCP server an address pool starting with **192.168.1.100** and ending with **192.168.1.200**.
8. Enter **192.168.1.1** as the gateway to be assigned to DHCP clients.
9. Finally, enter the IP addresses for the DNS Servers to be assigned to clients on the network. For example, 8.8.8.8, 8.8.4.4.



10. Click Add.

Your template has the WAN and LAN information. Now, you need to tell the SSR1500 how to use the information to connect users to applications. This is done using traffic steering and application policies.

Configure Traffic Steering Policy

To configure Traffic Steering policy:

1. Scroll to the Traffic Steering section of the template, and click **Add Traffic Steering**.

   Video: Add Traffic Steering Policy

2. Enter a name for the steering policy, for example, **local-breakout**.
3. Click **Add Paths** to give your steering policy a path to send traffic.
4. Select **WAN** as the path type, and select your WAN interface. For applications that use the policy, this indicates you want the traffic to be sent directly out of the local WAN interface.
5. Click the ✓ button in the upper right corner of the Add Path panel, and then click **Add** at the bottom of the Add Traffic Steering side panel.

Configure the Application Policy

To configure Application policy:

1. Scroll to the Application Policies section of the template, and click **Add Application Policy**.

   Video: Add Application Policy

2. Enter a string in the **Name** column, and click the check mark to the right of your entry.
3. Select your LAN network from the **Network** column drop-down list. Select **Allow** from the **Action** column drop-down list.
4. Select your application from the **Applications** column drop-down list. For example, application **Internet** that you created in "Add Applications" on page 6.
5. Select your local breakout steering policy from the **Traffic Steering** column drop-down list.

   Video: Configure the Application Policy

Almost there! You now have a working WAN Edge template that you can apply to many sites and appliances across your organization.

Assign the Template to a Site

Now that you have set up the template, you need to save and assign it to the site where your WAN edge device will be deployed.

1. Scroll to the top of the page and click **Save**.
2. Click the **Assign to Site** button, and select the site to which you want to apply the template configuration.

Great work! All that remains is to associate the SSR1500 with a site.

Assign the SSR1500 to a Site

After the SSR1500 is onboarded to the Mist cloud, you'll need to assign it to a site so you can begin to manage the configuration and gather data in Mist cloud.

1. Select **Organization > Inventory**. The status of the SSR1500 is shown as **Unassigned**.
2. Select the SSR1500 and from the **More** drop-down list, select **Assign to Site**.
3. Select the site from the **Site** list.

NOTE: Under **Manage Configuration**, do not check the **Manage Configuration with Mist** checkbox for the SSR1500 if it is using Session Smart Router software version 5.4.4. This allows the SSR1500 to reach out to the conductor IP address specified when the site was created to receive configuration information.

If you are onboarding a Mist-managed appliance using Session Smart Router software version 6.0, select **Manage Configuration with Mist**. If you do not select **Manage Configuration with Mist**, the SSR1500 will not be managed by Mist.

4. Click **Assign to Site**.

Video: Assign the SSR1500 to a Site

The site assignment takes a few minutes. After the site is fully onboarded, use the **Mist WAN Edge - Device View** to access the SSR1500, and the **Insights view** to view events and activity.

Install the SSR1500 in a Rack

Install the SSR1500 in a rack and connect it to power. For instructions see the hardware guide on the Juniper Mist Supported Hardware page.

Connect Your SSR1500 to the Mist Cloud

Your SSR1500, uses port labelled **MGMT** (mgmt-0/0/0) as the default port to contact Mist for zero-touch provisioning (ZTP). It uses port **2/1** (xe-0/2/1) to connect to the LAN.

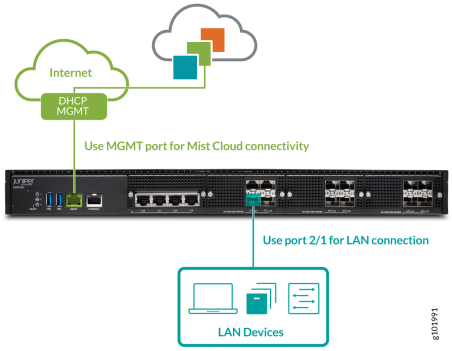
1. Connect the **MGMT** port to an Ethernet link that can assign a DHCP address to the SSR1500 and provide connectivity to the Internet and Mist.

   NOTE: For management, you can connect the SSR1500 to Mist using the **MGMT** port. You can also connect to Mist from one of the WAN ports only when the **MGMT** port is disconnected, or does not have a valid DHCP leased address and default route.

   Do not change the Mist management port once your appliance is powered on and connected to the Mist Cloud instance.

2. Connect port **2/1** to your LAN devices, such as

   - Mist-managed Juniper EX switches
   - Mist APs
   - User devices



3. Power on the SSR1500.

Great job! Your SSR1500 is now connected to the Mist cloud! In just a few minutes, Mist will send the template-driven configuration down to your device. Once the configuration has been applied, it will begin forwarding sessions from LAN to WAN as described by your policy.

Go to the WAN Edges menu on the Mist sidebar, select your device, and watch events as the device completes ZTP.

As your client devices connected to the LAN are assigned addresses from the WAN Edge DHCP server and begin sending sessions, telemetry will populate the insights page, and Marvis will start analyzing it on your behalf.

Step 3: Keep Going

SUMMARY

Congratulations! Now that you've done the initial configuration, your SSR1500 is ready to use. Here are some things you can do next:

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What's Next?

If you want to	Then
Understand the various configurations available on the SSR1500	See Configuration Management on the SSR
Configure essential user access and authentication features	See Access Management

(Continued)

If you want to	Then
Upgrade the software	See Upgrading the SSR Networking Platform

General Information

If you want to	Then
See all documentation available for the SSR1500	See the SSR1500 Documentation in the Juniper Networks TechLibrary
See all documentation available for SSR software	Visit Session Smart Router (formerly 128T)
Stay up-to-date with new and changed features and known and resolved issues	See the SSR Release Notes

Learn with Videos

Here are some great video and training resources that will help you expand your knowledge of SSR Software.

If you want to	Then
Get short and concise tips and instructions that provide quick answers, clarity, and insight into specific features and functions of Juniper technologies	See Learning with Videos on Juniper Networks main YouTube page
View a list of the many free technical trainings we offer at Juniper	Visit the Getting Started page on the Juniper Learning Portal

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